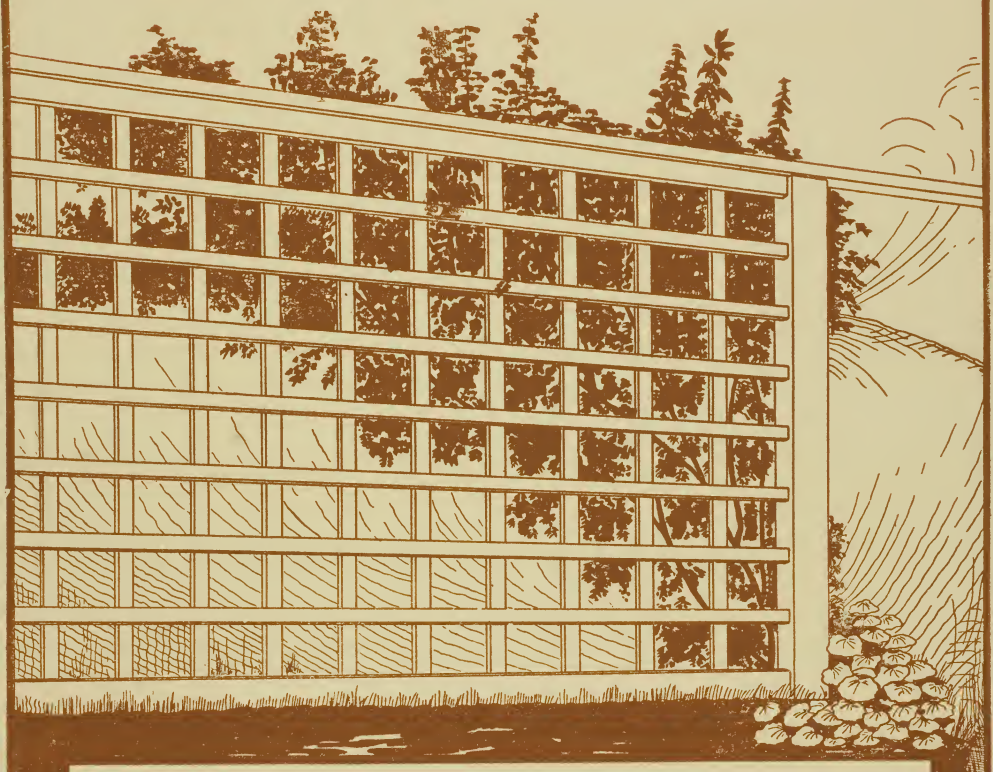
California Garden



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The California Garden

Published Monthly by the San Diego Floral Association
One Dollar per Year, Ten Cents per Copy

Vol. 13 POINT LOMA, CALIFORNIA, NOV., 1921 No. 5

BORROWING FROM THE FUTURE

We consider an individual who habitually and unnecessarily draws upon principal for his ordinary expenses,—taking no thought of the morrow, to be a very foolish and unbusiness like person, but when as a nation we draw upon resources which are not being replaced by nature as fast as we use them, and do not make any definite plan for replacement, it somehow assumes a very different aspect—why, we cannot see. We are very proud of our great lumber industries, but in the majority of instances that phase of their business is being conducted on the spendthrift plan. To be sure, there is apparent justification in the various contributory causes of this wasteful method—financial pressure, excess mill capacity, and the like, but the fact remains that, in the not-so-very-distant future we shall come to the end. The problem has many angles, all of which will bear careful consideration, but the net result **must** be that we provide for the replacement—in a systematic manner—of the millions of feet of standing timber which have to be cut to supply our ever increasing needs, and a less prodigal method of cutting used. In hundreds of communities right now, sawmills, box factories, etc.,—frequently the principal industries of those communities—are closing up because the timber for them is exhausted; many of our most beautiful forests are being destroyed by the axe and by the fires which follow certain methods of cutting. Not only is the denuded land,—unless it happens to be agricultural land,—unproductive, but a positive burden and an eyesore to the community in which it happens to lie. U. S. Forester Graves typifies the situation in which we find ourselves—a situation in which the public and the private interests appear for the moment to be absolutely at variance—as an impossible one, and one which cannot long continue. Sometimes there is hope in a situation becoming so acute that a remedy is perforce forthcoming. We have not the inclination,—nor the ability—to undertake to suggest how the details of a forest policy should be worked out, but what we do feel impelled to urge is that the men who are competent, the men who have studied this problem from an impartial viewpoint, be permitted and encouraged to lead us out of the wilderness—not of trees—into which we have all but become lost.

GEORGE ADE ON RURAL RECREATION

From Bertrand Brown, Community Service

A picnic and outing for all the farmers of the region was held at my place, Hazelden Farm, Brook, Indiana, on September 24th. We had thousands of people here. The schools in the county rehearsed for the community singing and there were many games and entertainment features. The party was a little hard on the lawn and the shrubbery, but it was a great thing for the community.

I am becoming almost an expert on Community Service.

In 1904 I moved to the country, in order to find a quiet spot where I could do my work undisturbed by the complications of city life. My house was built at the corner of a farm bordered a small river and was wooded with very fine specimens of our best native trees, I became generous and gave myself a wide domain for the private grounds surrounding the house. In clearing up the grounds we opened many spaces and threw them into stretches of lawn but at the same time we preserved as a background a great variety of the large and small trees and brush and vines that we found in the woods. People came in large numbers to ramble about the premises and hold picnic parties. We had about the only playground in the whole region which was cleared away and had an artificial setting of flowers and greensward.

In 1908 Mr. Taft opened his presidential campaign here at Hazelden, and we had 15,000 to 20,000 people on the grounds that day.

I built a swimming pool out at the west of the grounds and later on built a dancing pavilion, fifty by thirty-five feet, and that building has been used for a hundred purposes since 1910. The State Council of Defense met there and also the County Council. The Red Cross used it during the war as an assembling depot. Clubs and societies from Chicago and

Indianapolis and other cities have made it their headquarters at various outings. Near the pavilion, as we call it, was a fine open playground entirely circled by trees. Here we laid out a small diamond and the business men from surrounding towns came once a week to play soft ball. Later on we laid out a little nine-hole golf course within the home grounds. The neighbors became so fond of the baby course that a club was formed and now we have a real nine-hole course, three thousand yards long, and we have a club-house and a good tennis court and nearly all of the usual fixtures of an up-to-date country club.

Several years ago the Sunday visitors swamped us and we had to close the grounds on Sunday, but I have made it a rule not to turn down week-day visitors whether they come in small family parties or in large organizations. We have entertained parties ranging in size from fifty to eighteen thousand. The banner day was the Home-Coming celebration for soldiers and sailors on July 4th, 1919, when we had by actual count twenty-six hundred motor cars parked in the pastures and along the roadways.

My experience with large crowds has been that people behave themselves and do not wilfully destroy property or do any damage. Of course, when you have several thousand people swarming in the ten-acre enclosure at one time, they will kick up the turf a little and make a good deal of a muss, but they don't really do any damage that cannot be repaired. They enjoy a visit to grounds that are landscaped and well kept and they turn out in droves whenever invited.

Since motor cars have eliminated distance and good roads have directly connected all the townships in every county, the "county park" has become almost a necessity. Every small town and every rural township should have near at hand for the free use of the public, a large park which will serve all the purposes for which we have used our grounds, here at Hazelden. The forest preserve idea is all right and the state parks deserve public support, but they are too far apart. Each family that owns a little motor car should have a park within easy riding distance. In the average county of the corn belt, the family that starts out for a day of recreation usually winds up by taking a picnic lunch in the open highway. The woodland pastures are either barred against visitors or they are littered and dirty and uninviting. I believe the county park would be a real blessing. Part of it should be cleared for parking space and athletic field and the remainder should be left in a natural condition except that dead-wood and down timber should be cleared away. All the native trees and shrubs and flowers should find a refuge in this local park. All the important athletic contests of the county should be held on the athletic field. In each county you will now find several towns and each of these towns has a sorry-looking ball park and a weed-grown open space somewhere which is used for football and track meets, but, if all the towns in the county should unite they could support a first-class athletic field surrounded by bleachers and comparing with an college outfit.

We need in the country more playgrounds and more shower baths and recognition of the truth that the men and women who live in the country need not regard themselves as mere work animals. We need these things if we are to check the flow of population to the cities. By accident, and not because I started out to be a benefactor, I have been conducting an experimental park of the kind I am now advocating. Accept my assurance that the public will gladly make use of picinc groves and recreation grounds, if they are put within reasonable reach.

WHITE PINE BLISTER RUST FOUND IN PENNSYLVANIA

For the first time since the white pine blister rust was discovered in America, infections on currant and gooseberry bushes were found this fall in Pennsylvania. The original discovery was made by a United States Department of Agriculture blister and rust investigator in Wayne County. The significance of this discovery lies in the fact that white pine blister rust is spread from pine to pine only through the medium of currant or gooseberry bushes. While some blister rust has been found on planted pines in Pennsylvania, they were brought in from Europe in a diseased condition. These infected trees were destroyed before currant and gooseberry leaves became diseased, thus eliminating the danger of the blister rust attacking healthy pines.

Extensive work has been done in New England and northern New York the past summer to organize movements for eradication of the death-dealing bushes within 300 yards of white-pine trees and stands. Such work protects the trees from the disease for a period of years, but both wild and cultivated currant and gooseberry bushes must be destroyed within the 300-yard zone. Owners of fine stands of white pine often have been reluctant to believe danger exists through the proximity of the bushes, but once demonstration has been made, they become active in rooting out the offending shrubs. Infestations as high as 46 per cent of the pines have been found on some properties in New England and New York. White pine is well recognized as one of the most profitable crops that can be grown on the poorer soils of the Northeastern States.

Keep It In Mind--
THE BULB SHOW

Patronize the Garden Advertisers.

The Garden of the Muses

By Fidella Gould Woodcock.

The best inheritance that ancient Greek civilization has left the modern world in the content of the simple life is the appreciation of the natural forces impersonated in the light of Mount Helicon, the garden of Apollo and the Muses—sunshine, beauty, nature, art, poetry, music.

Translated into the spirit of the present age the Hebrew Scripture of today carries out in the principle of evolution the thought basis that the Creator not only made the world and all the species in it, but that he has not yet furnished it, God is making the wild creating and re-creating for his own glory and the eternal good of man. The finished product, the result of education in things ancient and modern is the satisfying of the homing instince, an abiding place for the soul to express its knowledge through the principles of pure science for the reproduction of life on a full and better scale, for improved species, for a place to think and make and recreate from the cares of the world.

The real home carries the garden with it and not added to it. A place for personal endeavor and a spiritual bath now and then, a space to look up at the blue sky and its mystery of morning and night stars and planets for a color film of family life, love of beauty, faith and imagination from which develops the hope of the future things that we want to realize. And it is here that we create our ideals and our standards, the world is full of them.

But the real garden is as much of a joy to the honest toiler who hoes and spades as to the patron of botanical gardens, even royalty itself. That can search nature and get no more from the labors of others than any man can get for himself who knows how to make his garden beautiful. Strange as it may appear, soil stirring, the baptism of dirt so to speak, produces the rarest things on earth, and flowers, to which nearly every word of praise that can be conceived by the human mind has been given.

The great discoverers who sailed the seas and explored the jungles from the very thought of adding to the known store of species more men who believed in themselves and that life is given us for the benefit of mankind, minds that instinctively feel the logic that progression evolution justifies.

The wonders of Kew Garden, of the Luxenbourg, of the Roman Campagna, of the New York Botanical Gardens, of Arnold Arboretum, and other gardens of renown lead the way to giving every one opportunity to do his part in making the earth better.

Educational botany in its literary research work is much concerned in the recital of the deeds of brave explorers and is so far praiseworthy in the fact, that it makes an attempt to inspire character and correct thinking in the children who are being taught. But what the world owes botany is a much greater debt than what the great naturalists owe the world. The most of the headlights that have blazed the trail for generations to come have lived and died in poverty facing hunger and privation with glorious courage.

And the fact that some of our choicest California wild flowers and native snrubs and trees have been so highly prized and cultivated for more than a hundred years by Europeans, makes us glad that we have waited even until this late day to attend to the matter of conservation by having a real California Garden at Torrey pines. It is an expression of patriotism for the land that we love to make the land bright with memorial landmarks, with groves and gardens, with monuments and paved highways. A Mausoleum or a Greek temple expresses less to us when placed in the setting of our native hills than a green grave with the warm tribute of living friends who remember us with flowers, or a simple church of the people. We should learn to think out our own architecture—our school system should teach original designs for home gardens.

Allegory has given the race in its infancy the divine teaching for its own well being, for its own progress. Our present problem is how to take care of what we have, and what knowledge to get for the hope of the future. The soil, the plant, the animal parasite, whether bird, or bee, or animal creation are essential to each other for action and reaction, the real garden includes them all. But the planting of a lot in San Diego has propositions that are unusual in other parts of California. When the annual rainfall is scarcely more than ten or twelve inches and irrigation the only redeeming quantity and the constant westerlies are at short notice transformed into complicated air passages to and from the desert the question is no longer simple, but is likely to become highly complicated. In the first place it is intercepted by the mountains. In the second it supplants the hot ground air of the interior valley sending it to the upper strata where during the change of the seasons the cold heights and the passes of the Sierras develop winds that fuse with the force of a huge blow-pipe the

warm air back to the Pacific, for out at sea whence it returns in the form of cooled and dripping fogs.

To the most of California, especially the part within the humid belt the northwest fog-laden breezes set in motion by the vibrations of the Japanese Current are vital to the growth of the giant conifers for which the Pacific coast is famed. Other hardy growths scarcely recognized as deciduous trees from the fact that the new foliage appears before the late verdure has reached the complete cycle are at the front on a northern exposure. When planted on the south side of the same canyon the same species are but puny striplings. The reason of this no doubt is that cross vibrations of the air from the Mexican plateau and the undertow found by the Antarctic current after it sinks into the equatorial seas from Peru bring in a cooler and drier south wind than the ocean current from the north.

These are the main features that affect gardening. They make the warm house not only convenient but necessary for the protection of the larger leaved and brilliant but tender flower habits of partly exotic plants.

One of the orders that contains so many of our ornamental conservatory groups is the Musales, of which Musa, the banana is the type. This order of plants is well represented in the Balboa Park conservatory by the richly colored maranta leaves, the ginger lily, and in the open, the canna and the banana that appears in size tree-like. It is the sheathing petioles of the banana leaves that give it the appearance of having a trunk but it really is not a tree at all. When cultivated under wall protection from the constant westerlies of San Diego with the light exposure of the Canary Island date palm and the shelter of surrounding groves the banana becomes well developed and bears large circles of inconspicuous flowers inside richly colored bracts where the fruit is. I have never tasted the fruit of a banana plant raised in this zone but find the tree very promising to look at. It is certainly of interest. However as a garden ornamental is too often wind-swept and ragged, owing to the diversity of winds on the coast. The fact that the banana has become seedless through long ages of culture shows that preserving agencies have made it valuable in mild climates. The Central American industry has certainly shown its qualities for providing the markets nearly all over the globe and when the social problems of Mexico become more settled so that a railroad from Hudson Bay to the Panama Canal can be operated. Guatemala as well as the northern countries will profit by more rapid transportation than that of the steamer for commerce and trade. Musa sapientum, the common banana, and Musa ensete, the abyssinian are truly fit food for the gods. Another type of Musaceae is the Heliconia which besides having the desirable foliage of a warm house plant has, however, a seedy capsule that is quite devoid of fleshy fruit. The case opens and shuts in the ordinary way of the wild plants, perhaps more cana-like in structure. These species are both first cousins to the Ravenala, or travelers' fountain tree of Madagascar. In the enlarged petioles of the leaf base water in the desert can be obtained when natural springs have failed. Ravenala Madagascarensis is sometimes cultivated in Southern California but is quite unusual.

Our most striking ornamental of this group in the conservatory and the moist pool of aquatic plants in Mission Cliff Garden is Strelitzia, the Bird of Paradise Flower. The form that grows well in winter, blooming until late in spring or even in a retarded summer is Strelitzia Reginae, a plant that appreciates the shelter of larger trees, never at the height of the season being more than four feet tall.

The flowers are singular, orange and blue in color, perched on a beak-shaped purple spathe at the end of a leafless cane, much like a gorgeous bird of the tropics, atilt a spray. Strelitzia Nicolai grown to a height of seventeen feet and is similar in appearance to the Musa. All through the warmest of the summer months the blue and white blossoms could be seen in the Mission Cliff walk and has been cultivated successfully in several gardens.

Of the ginger family very little is known but much can be said. It is purely an exotic, the root is aromatic, and furnishes oils for

Continued on page 6

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The November Flower Garden

By Mary Matthews.

If the very warm weather that we have had in the past weeks continues, our chief problem will be keeping our gardens in a growing state. Many shrubs and vines, especially those in the path of the prevailing winds, are showing the effects of it already. Every endeavor should be made to keep the soil moist. This is especially the case where bulbs have been planted; in many cases where they have been left in the ground the very early rain we had started them into growth, and if they are allowed to dry out now it will be a serious check to their blooms in the future. Sweet peas also will require a constant supply of moisture,—put the hose down on the ground near them and let the water trickle slowly until all the surrounding ground is well moist, then the next day loosen the soil along the trench in which the peas are growing, always throwing the dirt towards the peas. At this season of the year sweet peas when about four or five inches high will often turn yellow and then dwindle away, this I think is often caused by lack of drainage,—they like ample moisture but not the water to stand round the roots. Bulb planting can continue during this month, for the best results they should be in the ground not later than the first of December. Of course many will grow and give good results if put in after this time, but it is taking a chance. I am impressed more and more each time I read an article on bulb growing, and also see the prices asked for them with the idea of the great opportunity we have here.

Of the Cape bulbs, Freesias are about the only ones that are offered in large lots. Ixias, Sparaxis, Spanish Iris and others of this class, many dealers say they have been unable to obtain as they come under the import law. In only one catalog outside of California ones have I seen the Ornithogalum or Arabian Star of Bethlehem offered, and for those they wanted $2.50 per dozen, not prepaid outside the 4th zone, and here we could grow them by the thousands. This is, of course, the commercial aspect, but we ought all of us have some of our favorites in our gardens,—try those that are best suited to our locality and grow them to perfection. Many of our native wild flowers can be planted now and give good blooms in the spring.

Plant Calendulas, Larkspur, Mignonette, Batchelors' Buttons, California Poppy, and seeds of other annuals.

Transplant Pansies, Stocks, Snapdragons and Wall Flowers, Candytuft will also do well if put in now,—in fact most anything you may desire for early blooms will be all right if planted at this time and is well cared for. One seedsman is offering a new shirley poppy "American Legion",—he says they are of rebust growth, large size, good keepers and are a California product. This seed should go in now, also seeds of the beautiful yellow Mexican poppy, the Hunnemannia, properly. Also order seeds of your favorite summer blooming sweet peas now, as for best results they should go in in December.

SOME NEGLECTED KITCHEN HERBS

Parsley, Mint, Sage and Thyme are to be found in nearly every garden, with sometimes Marjoram in addition, but scarcely ever another. To those who do not already know and use them I should like to suggest the following:

Sweet Basil is well worth the trouble it entails. An excellent and aromatic flavoring herb. It is a very delicate plant here and needs to be started under glass to give it time to mature. It seems to damp off with the first autumn fogs, before ever the frost comes.

Winter Savory—A spicy little perennial, standing well and available all the winter.

Chives—This is a plant for every garden, except where the owners dislike onions. Nothing is easier to grow. The plant is pretty and tidy, with flowers not unlike those of Thrift. The leaves are the part to be eaten, cut up till they are just little green rings, and sprinkled among the lettuce in salad, or floating as a garnish in soup. The latter I have met with in Switzerland, and I have seen Chives for sale in the village shop at Hardelot, but they are surprisingly seldom grown in England.

Tarragon the Parisians consider an almost necessary ingredient in a salad, and it should certainly be included in the Herb garden.

Burnet has a pleasant taste of cucumber, and the very young leaves may be added to salad, but they soon become rather dry and tough. It loses its flavor if cooked.

Chervil may be used as a pleasant change from Parsley. It is an annual of rather uncertain growth, but usually sows itself when once established.

Fennel—A sauce made with the chopped leaves is considered the proper thing to eat with mackerel. It is a handsome plant, worthy of a place at the back of the herbaceous border. At Holt, in Norfolk, in 1917, I saw the copper-leaved variety, but have not met with it elsewhere.—R. Bickersteth in Gardening Illustrated, London.

Patronize the Garden Advertisers.

OCTOBER MEETING

The regular monthly meeting for October was held Oct. 20th, at the home of Miss Martha Frost, 2456 Broadway. A large number was present and in the absence of the President, Mrs. Greer, vice-president, presided. After the reading of the minutes, some routine business was gone through with, then Mr. Louis J. Gill opened the talk of the evening, the subject of which was "The Lath-house in Connection With the Dwelling." Mr. Gill's subject was so ably handled, being both instructive and entertaining, that it was unanimously decided to give it publication in the Garden Magazine so that all may enjoy it. The other phase of the lath-house was then taken up, that of planting,—this was open to general discussion. Mrs. Frevert and Mrs. Waite, both of whom are well versed along this line; leading. Many important points were brought out, one of which was that Begonias in the lath-house were pre-eminently a San Diego feature.

After this discussion the various flowers brought by members were shown, Mr. Lawrence as usual bringing a generous lot,—among them some fine Dahlias.

The meeting then adjourned after a vote of thanks to Miss Frost for her hospitality, inasmuch as she has entertained us twice within the year.

MARY A. MATTHEWS, Secretary.

Ralph F. Cushman

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GARDEN OF MUSES

Continued from page 4

medicine as well as dye stuff.

It has two types of inflorescence, either a spike-like head of brilliant red, yellow, or white flowers or a cone of brilliant hues made up of hulls from which grow the tiny flowers, Costus, the spiral flag has peculiar cones on a long green cane that shoots up from the ground separate from the leaves. It is propagated by cutting the canes into two inch sections, planting in warm sand over peat or rich loam. Mrs. W. L. Frevert has a young plant in the ground of her lath house out of doors,—a species cultivated in Southern Florida.

With her usual success Mrs. Frevert is making exotics interesting and keeping up the spirit of plant protection by three walls from the wind and one from the direct strong light.

The order Musales singularly enough though having a Greek sounding name is really of arabic derivation from Mauzah, the banana. Its four families are Musaceae, Zinziberaceae, Cannace, and Marantaceae—all are seen frequently in hot houses to which they are well adapted.

None of them are recorded as growing in the beloved garden of Apollo but like many of the fanciful names of tradition, Haliconia a native of tropical American has adopted from a pure love of classic lore a Greek name for no known reason.

And it is the work of botany to untangle past entanglements realizing that the flower itself is often more beautiful than its name or pedigree.

Prize-Winning Basket—Fall Flower Show

Keep It In Mind

BULB SHOW SOON

DR. THOMAS COULTER

(Third of a Series of Articles on Pioneer Western Botanists.)

By Lena B. Hunsicker
San Diego Public Library.

The third member of the trio of famous western botanists of pre-American days is Dr. Thomas Coulter. Although, perhaps undergoing no less hardships in his work than other pioneer scientists, he lacks much of the picturesqueness and quaintness of David Douglas and Professor Nuttall. This, however, is no doubt due largely to the fact that we know so little of the personal and intimate side of Coulter's Mexican and Californian excursions.

Of his early life we know practically nothing except that by birth he was an Englishman and in England he was educated. Then the Western World with its vast regions of unexplored forests and mountains and plains called and the same desire for botanical research which was seizing other English and Scotch botanists urged him on to the New World and in Mexico and Central America we find him making his first extensive collections.

Working his way north, during the winter of 1829-30 he was in Sonora. The winter of 1831 found him in California, arriving at Monterey in November. How he came we have no record, although in all probability he made the journey by water, since the route across the desert from Sonora was hardly practical in those years. At Monterey it was that Dr. Coulter met David Douglas, then also collecting in California and the two spent many a delightful hour discussing their work and their experiences.

On arriving in California, Dr. Coulter lost no time in his botanical excursions and before the end of the year he made at least one very notable discovery, that of the incense tree (arbol de incienso) of the Santa Lucia Mountains—at that time he was making his headquarters at the San Antonio Mission. Through him the fame of the tree spread to Europe.

In these same mountains he found also a very large cone pine. This is now known as Coulter's pine and is found as far south as our own San Diego County mountains. Shortly after his discovery of this pine, Douglas also found it.

Not a great deal is known of Dr. Coulter's travels in California and our source of knowledge is a single paper written for the London Geographical Society in 1835. A map was published with the report and a reproduction of this map may be seen in Bancroft's History of California, volume 3, page 407.

From this map we learn that his travels extended south from San Francisco Bay covering the chain of missions as far south as San Diego. One other trip he made, from March to July of 1832, which was of great importance, that was a botanical journey from San Gabriel to the Colorado Desert. His map indicates that he reached the desert by way of Pala, Warner's Ranch (however at that time not so known) and the San Felipe Pass.

For three years Prof. Coulter worked in California and the result of all his arduous labors was the collection of over a thousand specimens, a splendid contribution to the botanical knowledge of the time.

In 1833 Prof. Coulter returned to England, never again returning to America. After his return home he was appointed curator to the Herbarium of Trinity College, Dublin, and this position he held until his death.

The importance of his California excursions is two fold, one botanical, for he was the first botanist to cross the Colorado Desert and was thus one of the first to make known to the world the peculiarities of the desert flora. Of historical importance is the fact that he discovered the ruins of the two Colorado River missions.

His comments on the country in general, are very interesting in the light of its modern development. In Southern California, in his estimation, the region between San Pedro and San Bernardino, is the only point of either Californias, south of San Francisco, capable of sustaining a large population.

The white population of California he estimates as about 6000, the Indian population he notes as rapidly decreasing and in all probabilities eventually annihilated.

Inspired by the same zeal which had led Douglas to seek the unexplored portions of the New World, Dr. Coulter's contribution to the botanical knowledge of his time was extremely vaulable even though somewhat eclipsed by the priority of Douglas's discoveries.

Biographical

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James—Wonders of the Colorado Desert, p. 97.

Rice—Popular Studies of California Wild Flowers.

Saunders—With the Flowers and Trees in California.

Overland n. s. 2:409—Early Botanical Explorers of the Pacific Coast, by C. C. Parry.

**GOOD CARE NOW
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MISSOURI BOTANICAL GARDEN'S ANNUAL MUM SHOW OPENS

Enchanting Riot of Color at Interesting and Varied Display.

The annual chrysanthemum show of the Missouri Botanical Gardens presented one of the most interesting and varied display of "mums" ever grouped together to make up an enchanting riot of color. The show, which was arranged by G. H. Pring, horticulturist of the Missouri Botanical Garden, can be seen through the month of November in the floral display house to the right of the main building in the great inclosure.

Among the announced features which will be of especial interest to flower lovers, according to W. O. Mitchell, an expert in the criticism of "mums", are a number of Japanese varieties. The "Turner", a great pink flower, and several grafted blossoms of various colors growing on the same stems, give a touch of novelty to the exhibition. Yellow, pink, red, white and rose colors will blend into the profusion of nodding heads which will greet the visitor the exhibition. More care than usual has been given to artistic arrangement and practically every color in the spectrum has been worked into the decorative scheme.

As a background for the exhibit the green of banana and India rubber trees, together with many species of palms which make their home regularly in the floral display house, have been used by the exhibitors.

Oriental Varieties Present

Oriental varieties will be present in abundance, attaches of the garden say. The "Takahana" and the "Mignonette" are some of the leading figures in this flower land. The general ground plan of the exhibition room, with two side paths and a central avenue, is expected to expediate the movement of guests at the exhibition and has also materially helped the horticulturists in their work of arrangement.

The true "mum" lover is constantly experimenting with grafting knife and camel's hair brush in order to evolve larger specimens. Examples of this work will be numerous at this year's show, for flower artists have been very busy. The general method followed in developing different varieties of the chrysanthemum, according to Mitchell, is to cross-breed by scattering pollen from one flower to the stigma of another and then grafting the hybrid onto still another stem.

Grown for Centuries.

Every "mum" show has its peculiar historical interest, for the flower has been cultivated for untold centuries in China and Japan. It has a religious significance in these countries, especially in Japan, where an annual festival is held each year in its honor. The highest Japanese decoration is the Imperial Order of the Chrysanthemum, which is only given to those of royal rank.

In the times of Confucius the Chinese were perfoming grafts and developing flowers little different in type from those seen today. One of their varieties was called "The Drunken Lady," because of its manner of drooping during the day. The true chrysanthemum, Mitchell says, is found from Hong Kong to Pekin, and is of yellow color.—St. Louis Globe-Democrat.

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The National, State and Local Tuberculosis Associations of the United States

Prepare For the Bulb Show

EXPERIENCES OF A TICKET TAKER

JOSHUA L. BAILY, JR.

Did you ever take tickets at a flower show? Possibly the idea does not appeal to you. In fact, the difficulty the managers seem to encounter in locating anyone ready, able, and willing to serve in this capacity might be construed as an indication that there are not very many members of the Floral Association to whom it does appeal. To have to be among the first to arrive and the last to depart, never to cross the threshold, and to have to listen to the farewell remarks of the visitors which exhibit about as much variety and originality as the San Diego weather reports, is hardly a position likely to suffer from a superabundant supply of volunteers.

It did not appeal to me at first. I had to be drafted. And then as soon as I had put the receiver back on the hook I began to think of all the good excuses I might have made for not serving. But it was then too late to claim exemption, as it generally is when I think of bright things to say. So the next day found me approaching the Cristobal at the appointed time, where I learned that the show had opened half an hour early and the crowds were already thronging the box office.

There is an old story about an itinerant showman and a moose, to see which he charged an admission of twenty-five cents a family. Among the spectators was a couple accompanied by a baker's dozen children, more or less, of assorted sizes. As they filed through the turnstile the showman interrogated, "Are you sure these are all your children?" On being answered affirmatively he continued. "Then the rest needn't go in. I will bring the moose out. It will be worth more to my moose to see your family than for your family to see my moose." I was always sorry the story stopped there. I wanted to know what the moose thought about it. And I have never been able to find out, but I can at least guess what the flowers think about the people who pay twenty-five cents to look at them, for I have been part of the flower show, or at least some people thought I was, if the questions they asked are any indication.

I have come to the conclusion that there are nearly as many kinds of people as there are of flowers. To the spectator all other spectators look exactly alike. They all drift aimlessly about among the exhibits, reading labels where there are any labels, and inhaling the fragrance. They all remain about the same time and depart feeling somewhat edified. But the ticket taker has opportunity to detect differences that are unobservable elsewhere. For instance here comes a man with a pass. Watch him. He wants everybody else to know about it, and he hands it over to the ticket taker as if it were a ten dollar bill on its way to Greenland's Icy Mountains. Following him comes a lady who has not got a pass. Would she like to have one? Wait and see. She advances cautiously when no one is listening and whispers, "Is the admission free?" The ticket taker explains and then—"Where can I get a ticket?" "How much does it cost?" and on receiving the information she assumes a Moses-looking-into-the-Promised Land attitude and says, "Well, I guess I won't go in."

Of course there are the boy scouts who are helping with the exhibits, but who spend most of their time running in and out to impress the public with the fact that they don't need tickets. Then there are the expressmen, bringing eleventh-hour contributions, and who must have the right of way, and then there are the exhibitors, most of whom wear gorgeous-looking badges, the insignia of class. But some of the better known exhibitors have dispensed with these on the ground that their faces are their tickets. (The ticket taker is glad his orders do not require him to punch the tickets.)

It is surprising how many people arrive apparently only to use the telephone, and if they exercise a little judgment they can enter when that useful instrument is busy, and make use of their time while waiting their turns. Then many people make appointments to meet their friends at the flower show, and of course when two people agree to meet anywhere one of them always arrives before the other, and while waiting for the tardy one take in the show. The ticket taker thinks of the story of the shopper in the dry goods establishment who asks to be shown nearly every bolt of cloth, and then explains to the salesman that she didn't come to buy, but merely to meet a friend. The clerk replies, 'Well madam, there is one bolt of material left If you think he is in it I will be glad to unwrap it for you."

Then there is the kind of person who wants some one to talk to—to ask questions, perhaps. They all come to the ticket taker, sooner or later, not because he looks intelligent, but because they know where to find him, and he can't get away. The most popular question is whether anything is for sale. Of course nothing is, but sometimes it is a little hard to get that across. They come back with, "What, not even the little fern in the pot on the shelf above the desk on the left hand side of the door against the wall?" and when the ticket taker explains that he has been too busy to go into the show and consequently hasn't seen the fern or the pot or the shelf or the desk or the wall or the door, they get very sympathetic and one of them consolingly says, "Well, never mind, the most beautiful thing in the whole show is

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hanging on the wall beside you. I hope you can tell me what it is?"

It is a branch of Eucalyptus pulverulenta, but the ticket taker found that out afterwards. All he can explain is that it is a eucalyptus. But that doesn't satisfy. "Why, I have seen lots of eucalyptus trees, but they never looked like that. I think you Californians must call everything a eucalyptus if you don't know its right name." And then on inspecting it more closely, she exclaims disappointedly, "O, now I see what makes it look different. You have powdered it. I know the powder doesn't belong on it, for its all over your coat." And having caught the ticket taker in the act of imposing on the credulity of a visitors, she goes on her way rejoicing.

Next comes a party of three adults and two children. As they approach one of the ladies addresses the party in Castilian, and then for my benefit she speaks to the children in a tongue more familiar to me, United States, "Now Benito, and you, too, Maria, stay here and help take tickets while we look at the flowers."

The children get on the job at once. Each tries to take more tickets than the other. They are so efficient that soon one of the managers, who has been watching the experiment, inquires of the ticket taker if they belong to him. The ticket taker does not faint —he has gotten over that—but explains as seriously as he can.

Then two ladies approach from opposite directions. One is on the inside looking out, the other on the outside looking in. The one on the outside is pushing a perambulator. The one on the inside offers to push it for her while she goes in. The exchange is made, the owner of the perambulator addressing the ticket taker en passant, "If my child begins to howl, be sure to call me." In a minute another lady enters and announces: "There is a squalling baby outside and if you know its mother I will take the tickets while you look for her." But I am saved the trouble. The parent comes out on high gear exclaiming, "I was looking at the water lilies when I heard my child begin to bawl. * * *" She is out of hearing, but the child is not.

And now, toward the end of the day, when the flowers are getting wilted and the ticket taker likewise, who is this that approaches? The badge on his chest indicates an official, but unlike most officials he stops in front of the ticket taker's chair, and delivers himself in this fashion. "You have had a hard day. Let me take the tickets for a few minutes and you go in and look at the flowers." The words drown the conversation of the spectators, the cries of the baby in the perambulator, and Dr. Stewart's organ, and I slowly arise from my seat and straighten the kinks in my knees, express my gratitude and depart in the direction of Mr. Robinson's begonias.

CALIFORNIA DAHLIAS BECOME FAMOUS

California dahlias are becoming world famous according to the college of agriculture of the University of California, which now has a test garden for dahlias in co-operation with the Dahlia Society of California. The California varieties are becoming so wonderfully developed that the east and even Europe is sending for tubers.

Dahlias have a place in every home garden where the climate is not too hot or dry. This flower is one of the most popular because of its long blooming season. In order for flower lovers to better understand the culture of dahlias and other flowers, the college of agriculture offering a correspondence course on home floriculture.—San Diego Tribune.

Winner of First Prize, Decorated Dining Table, Fall Flower Show

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BOYS' AND GIRLS' PAGE

METHODS OF TRANSPLANTING

How to Prevent the Seedlings from Wither- Cloudy, Moist Day or Late Afternoon Best Time for Transplanting.

(Written for the United States School Garden Army.)

When you dig up a plant from a box, a hotbed, or a row in a garden and set it out in a new place you transplant it. If you are to be a really good gardener, you will need to know how to transplant several of your crops in such a way that they will grow.

You drop a seed into the open drill. You cover it with soil. The rain waters it. The sun warms it. The seed sprouts into a seedling that sends out roots below the surface and a shoot above the surface. When the seedling has been growing for a few days it becomes connected with soil particles by hundreds of tiny roots and thousands of root heirs.

If you dig up your seedlings most of these rootlets and nearly all of the root hairs will be broken off. This is, of course, a shock to the plant. It stops growing because food materials that have been coming through the root hairs and rootlets are no longer sent up. A new lot of these must be developed for growth to continue.

One of the best ways to prevent this injury is to grow the seedlings in a flower pot or something similar in which the roots will develop in a compact space. Then the seedling can be carefully taken out, or if the receptacle is of paper the whole may be set directly in the soil. The paper will soon rot away.

The great trouble in transplanting is that the seedling wilts. This is because the water evaporates from the leaves and no water comes in through the roots to replace that which evaporates. It helps to have lots of water in the plant when it is dug up. So the soil in which the seedlings are growing should be soaked a few hours before they are dug up.

The hotter the sunshine the more rapidly does evaporation take place. So it is desirable to transplant on a cloudy, moist day, or else in the late afternoon.

The greater the leaf surface the larger the amount of water evaporated. So it is often desirable to remove the larger leaves, or cut them through the middle. This is a great help in letting the plant get hold in its new position.

It is, of course, necessary that there should be plenty of moisture in the soil about the roots. So to be sure of this we may pour water before transplanting into the hole where the plant is to go or we may pour water on the surface after it is set out. On a larger scale we will be sure the soil is freshly tilled.

It is important that the soil particles be directly in contact with the roots. This will enable the rootlets and root hairs to get moisture more easily. So in setting out the seedlings we should press the soil down firmly with the hands.

FEED THE FISHWORMS

Continued from October Number

This experiment shows what is happening all summer in every garden where leaves and fishworms are present. And it is not leaves alone that the fishworms eat. All kinds of plant materials soft enough for them to get hold of are devoured and the particles passed through their bodies to be cast out as pellets on the surface. In this way the earthworms have been very helpful in increasing the depth of soils. For while one worm alone may not do much in one year, a million worms in a hundred years will accomplish a great deal.

You will readily see that this grinding up of the leaves in the bodies of the worms makes them more useful in furnishing food to roots of plants. The tiny root hairs can penetrate all through the fine particles and absorb moisture and food. But the grinding up is also helpful in another way. The soil is full of minute germs called bacteria, which are always at work producing food for plant growth. These bacteria can work much better in this finely ground leafy material than in coarse leaves. So the worms are of great assistance in making the soil richer in chemicals for plant growth.

Even the holes that the worms make in the soil are helpful. They permit air to penetrate and rain to run in, thus furnishing two of the most necessary things to keep the soil in action. On this account alone it is desirable to have earthworms in the garden.

Humus is called the Good Producer. When you feed fallen leaves to the fishworms they become producers of humus and enrich the

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G. R. Gorton, Editor
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soil by so doing. They help to make the soil better, but they must have plant materials to do it with. In general the richer your garden the more earthworms there will be. And the more earthworms the more humus and the more humus the more food, and food is what every soldier of the School Garden Army is after.

So it all comes down to this: If you feed the fishworms the fishworms will feed you.

STUDY BOTANICAL SPECIMENS TO FIND NEW USEFUL BEAN

One of the clews by which new plants of value may be found is to study the great collections of dried plants in the larger museums. One group of plants, containing the Jack Bean of plants, containing the Jack Bean, and its allies, in which there was reason to believe that valuable species might occur, is being studied by Prof. C. V. Piper of the United States Department of Agriculture. The department has recently borrowed all of the dried specimens from the Royal Botanic Gardens at Kew, London.

There are about 15 species in the Old World. Many of the dried specimens collected by old exploring expeditions are as much as 100 years old. The study has disclosed the fact that an entirely undescribed species with larger seeds than any other known is cultivated in certain districts in Africa, and efforts are being made to secure fresh seed, as it looks valuable. Several other heretofore unrecognized species look as if they might be valuable.

CHILDREN'S EXHIBITS
Wild and Cultivated Flowers
Spring Flower Show

Floral Association Meetings

December 15, 1921, 8 p. m.
(Note change of date.)
Place of meeting—Home of Mrs. N. B. Osborn, 2073 Logan avenue.
Subject—The Nurserymen and the Garden.

Semi-annual meeting, January 17, 1922, 8 p. m.
Place of meeting—Gray, Maw Music Co., 1256 Fifth street.
Subject—The Camera and the Garden.

RICH TOP DRESSING REVIVES FADED LAWNS

Lawns get a tired look late in summer and can be stimulated and made fresh, according to experts of the United States Department of Agriculture, by a light top dressing, composed of 2 parts good loamy soil, one of well-rotted manure, finely comminuted, or any good compost in which soil predominates, with 1½ pounds of sulphate of ammonia or nitrate of soda, for every 1,000 square feet.

The mixture should be applied evenly, and will result in quick stimulation and new green growth. A mixture with a good proportion of soil is strongly urged, especially when the chemicals are used, as they will burn the grass when used too liberally on the lawn. If the grass is watered after the fertilizer is applied it should be thoroughly and liberally done.

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